

PTO
J1002-U.S.
09/884306
06/19/01

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)	Atty. Docket No.: EP 1020-CIP	Serial No.:
	Applicant: Starnes, et al.	
	Filing Date:	Group:

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
P.S.	AA	3,136,740	June 8, 1964	Klemchuk, et al.	524	392	
P.S.	AB	3,503,924	March 31, 1970	Pollock et al.	524	180	
P.S.	AC	3,507,827	April 21, 1970	Pollock et al.	524	180	
P.S.	AD	3,928,285	December 23, 1975	Gough et al.	524	178	
P.S.	AE	4,098,763	July 4, 1978	Starnes, Jr.	568	824	
P.S.	AF	4,202,806	May 13, 1980	Yoshida et al.	524	340	
P.S.	AG	4,948,827	August 14, 1990	Christidis	524	392	
P.S.	AH	5,216,058	June 1, 1993	Visneski	524	436	
P.S.	AI	5,414,030	May 9, 1995	Kotani et al.	524	99	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
P.S.	AL	EP 0 890 608 A2	January 13, 1999	Europe			
P.S.	AM	EP 0 945 484 A1	September 29, 1999	Europe			
P.S.	AN	WO 99/09094	February 25, 1999	WIPO			

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

P.S.	AR		Abstract from 36 Plastics Manufacturer, Volume 86, 1977 pp. 44-45 entitled "Stabilizers for Chlorine-Containing Resins".
P.S.	AS		Stabilization of Poly(vinyl chloride) by Thiols. A Mechanistic Study, Volume 11, No. 2, W. H. Starnes, Jr., I. M. Plitz, D. C. Hische, D. J. Freed, F. C. Schilling, and M. L. Schilling, Bell Laboratories, Murray Hill, New Jersey, pp. 373-382, March-April 1978.
	AT		

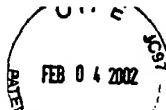
EXAMINER

Peter Szeles

DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No.: EP 1020-CIP	Serial No.: 09/884,306	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				Applicant: Starnes et al.		
				Filing Date: 06/19/2001		
				Group:		

U.S. PATENT DOCUMENTS						
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing date if appropriate
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

FOREIGN PATENT DOCUMENTS						
	Document Number	Date	Country	Class	Subclass	Translation Yes No
P.S.	AL JP63241055	06/10/88	Japan			Yes
	AM					
	AN					
	AO					
	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AR	
	AS	
	AT	

EXAMINER <i>Peter Szekely</i>	DATE CONSIDERED <i>4/17/03</i>
-------------------------------	--------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED
 FEB 07 2002
 TC 1700

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.: EP 1020-CIP	Serial No.: 09/884,306
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)		Applicant: Starnes, et al.	
		Filing Date: June 19, 2001	Group:



U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
P.S.	AA	4,338,226	July 6, 1982	Worschech et al.	524	307	
P.S.	AB	4,849,463	July 18, 1989	Kemper	524	302	
P.S.	AC	4,973,619	November 27, 1990	Kemper	524	302	
P.S.	AD	5,057,567	October 15, 1991	Fisch et al.	524	302	
P.S.	AE	5,057,622	October 15, 1991	Chisholm et al.	560	152	
P.S.	AF	5,198,486	March 30, 1993	Chisholm et al.	524	307	
P.S.	AG	5,536,767	July 16, 1996	Beckman et al.	524	307	
P.S.	AH	6,232,380	May 15, 2001	Conroy et al.	524	291	
	AI						

RECEIVED
MAY 28 2002
TC 1700

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
P.S.	AL	JP 63241055	June 10, 1988	Japan			Yes
	AM						
	AN						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

P.S.	AR		A Novel Initiation Process for the Nonoxidative Thermal Dehydrochlorination of Poly(vinyl chloride): Apparent Intermediacy of a Cyclic Chloronium Ion by Starnes et al., Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 21 (2), pp.138-139, 1980.				
P.S.	AS		Mechanistic Aspects of the Degradation and Stabilisation of Poly(vinyl chloride) by W. H. Starnes, Jr., Developments in Polymer Degradation - 3; N. Grassie, Ed.; Applied Science: London, U.K., Chapter 5, pp.135-171 1981.				
P.S.	AT		Primary Event in the Thermal Dehydrochlorination of Pristine Poly(vinyl chloride): Intermediacy of a Cyclic Chloronium Ion by Raghavachari, et al., Journal American Chemical Society, Volume 104, pp. 5054-5056, 1982.				

EXAMINER

Peter Szele

DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 U.S. Department of Commerce
Patent and Trademark Office

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

Atty. Docket No.:

EP 1020-CIP

Serial No.:

09/684,306

Applicant:

Starnes, et al.

Filing Date:

June 19, 2001

Group:

RECEIVED
JUN 26 2002
TECHNOLOGY CENTER 1700

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	AL						Yes
	AM						
	AN						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

P.S.	AR	An Alternative Synthesis of Tiopinac, T. Craig Thurber et al., Contribution Number 567, Development Research Laboratory, Institute of Organic Chemistry, July-August 1982, pp. 961-965.
P.S.	AS	Thermal Stabilization of PVC by "Plasticizer Thiols", W. H. Starnes, Jr. et al., Departments of Chemistry and Applied Science, Journal of Vinyl & Additive Technology, December 2001, Volume 7, No. 4, pp. 250-253.
P.S.	AT	Heat Stabilization and Plasticization by "Plasticizer Thiols", A Remarkable New Class of Nonmetallic Additives for PVC, W. H. Starnes et al., Departments of Chemistry and Applied Science, Polymer Preprints 2001
P.S.	AU	Nonmetallic Primary Heat Stabilizers for Poly(vinyl chloride), W. H. Starnes, Jr. et al., Department of Chemistry and Department of Applied Science, March 24-27, 2002, Additives 2002 Conference, pp. 1-7

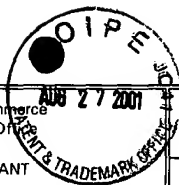
EXAMINER

Peter Seibel

DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.:

Serial No.: 09/884,306

EP 1020-CIP

LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

Applicant: Starnes et al.

Filing Date: 06/19/2001

Group:

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
P.S.	AL	JP63241055	06/10/88	Japan			
	AM						
	AN						
	AO						
	AP						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

Peter Szeveloff

DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 1 of 1

Form PTO-1449 U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.:
EP 1020-CIPSerial No.:
09/884,306LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)Applicant:
Starnes, et al.Filing Date:
June 19, 2001

Group: 1714

RECEIVED
OCT 03 2002
TC 1700

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing date if appropriate
P.S.	AA	2,483,984	October 4, 1949	Searles, Jr.	524	289	
P.S.	AB	3,585,038	June 15, 1971	Cescon et al.	430	343	
P.S.	AC	3,917,553	November 4, 1975	Thompson	524	303	
P.S.	AD	4,576,984	March 18, 1986	Bresser et al.	524	181	
P.S.	AE	4,873,005	October 10, 1989	Hyde	524	392	
P.S.	AF	4,963,594	October 16, 1990	Gay	524	303	
P.S.	AG	5,030,671	July 9, 1991	Wehner et al.	524	289	
P.S.	AH	6,326,518	December 4, 2001	Duval et al.	568	46	
	AI						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
P.S.	AL	1,024,270	January 25, 1965	GB			Yes
	AM						
	AN						

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		
	AS		
	AT		
	AU		

EXAMINER

Peter Suckley

DATE CONSIDERED

4/17/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.